

INTELLIGENT LIGHTING SOLUTIONS

for buildings



ISgreen

We Make the Buildings Smarter



SST



ILS TECHNOLOGY. INTELLIGENT LIGHTING FOR BUILDINGS

PROOF OF INTELLIGENCE COMES WITH YOUR ELECTRIC BILL.

Intelligent Lighting Solution, ILS is a Business Intelligent Platform, developed for a maximum energy savings performance and users comfort and ergonomics. In other words, users will be happier and you will save money and reduce your carbon footprint.

SIMPLE

- To install, to use and to check results and equipment operating conditions.
- To control the amount of light when and where needed.
- To connect or disconnect equipment's according the local occupancy, business rules or safety conditions.

ECONOMIC

- ILS significantly reduces lighting electricity consumption from over 40% up to 75%.
- Maintains a high level of users comfort.
- Predicted savings according to usage expectations are delivered to clients together with the acquisition proposal.
- Clients receive periodic reports on usage and savings so they can easily check results against predicted savings and improve operating conditions.
- ILS provides after-sales support and service, namely reporting, according to sales contract.
- When installed alone to improve existing systems the payback is shorter.

VERSATILE

- ILS easily and quickly adapts to changes in working conditions, zoning or scheduling. All is needed is a smart-phone.
- ILS is compatible with most existing lighting and automation systems.
- ILS creates its own network.
- ILS is wireless, making it easy to install, configure and reconfigure both in new and existing buildings.

INTELLIGENT AND AUTONOMOUS

- Each ILS controller continuously monitors its surroundings and feeds data to its dedicated algorithms to always manage lighting and other equipment's in an optimal way according to its own programmed set of rules.
- The collected data together with usage parameters and system consumption is sent in real time to the cloud so it can be processed, analysed and data-mined.

INTELLIGENT AND AUTONOMOUS LIGHTING
USER'S COMFORT
LOCAL SAFETY



FIVE STEPS TO KNOW HOW MUCH YOU CAN SAVE.

Through our five step approach we can tell you how much you are going to save with ILS Technology.



GUARANTEED SAVINGS

We always work together with our client to provide them support from initial assessment to ongoing operation to make sure the targeted savings are reached. Our confidence in ILS performance enables us to propose to our clients different forms of acquisition.



SST is a group of companies dedicated to develop smart solutions to manage water and energy in buildings. IsGreen is one of these companies, specialized into the management of Lighting and Energy in buildings.

Simple sale

The client buys the ILS solution and optionally contracts a company to support for as long as wants.



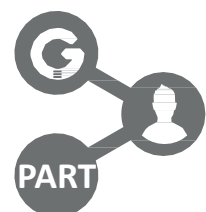
Performance Agreement

SST Group established agreements with several financing entities. The ILS solution is financed by them based on ILS savings assessment. The user contracts support for as long as he wants.



Partners Agreement

We also have established partnerships with other companies so you can contract ILS solutions with them. The user may contract ILS support for as long as he needs.



NEVER TOO BRIGHT. NEVER TOO DARK

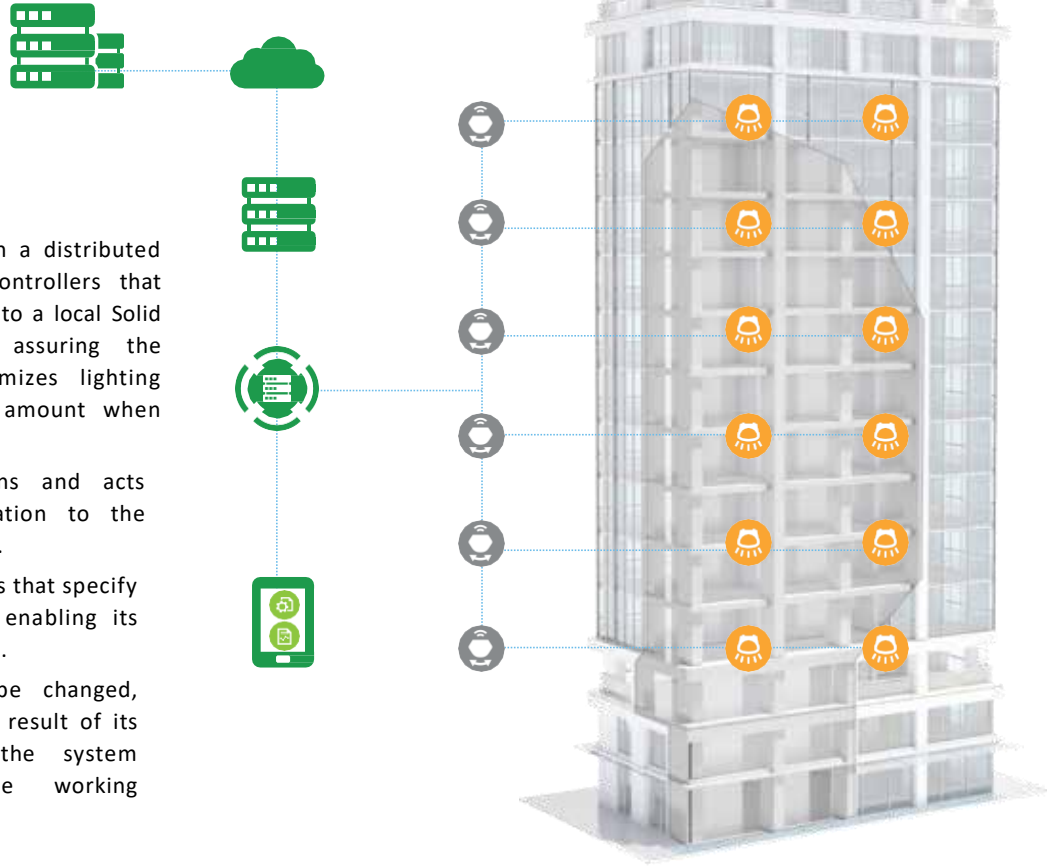
How it works

ILS Technology is based on a distributed intelligence network of controllers that exchange data in real time to a local Solid State Embedded Server, assuring the system continuously optimizes lighting always providing “The right amount when and where necessary”.

The ILS controllers, learns and acts always adapting its operation to the evolving usage environment.

ILS has a built-in set of rules that specify how the system operates enabling its adaptation to each situation.

These rules can easily be changed, either by the system, as a result of its learning capability, or by the system manager, whenever the working conditions change.



LUMINAIRE



CONTROLLER AND SENSOR



SSSE



LOCAL SERVER



SST CLOUD



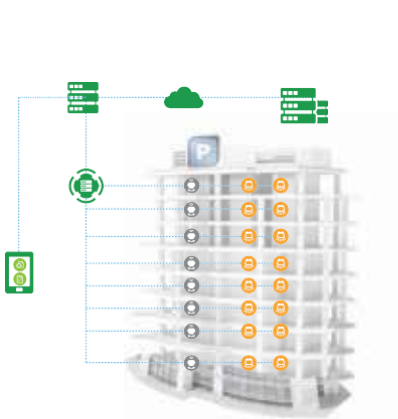
REMOTE SERVER



MOBILE

A system that adapts to your needs.

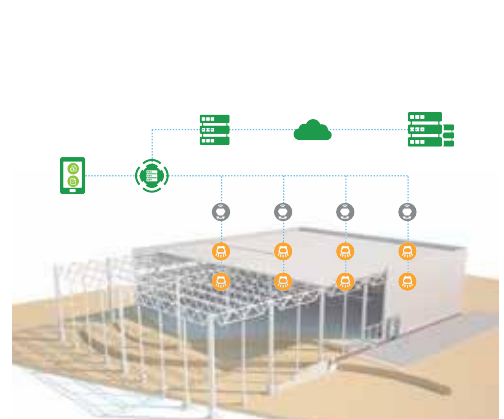
Parkings



Offices



Industry and Logistics





INTELLIGENT LIGHTING IN BUILDINGS

Lighting is the driver for 40% of all energy consumption in office buildings, and is also the main cause for electricity wastage as often rooms and spaces are always lighted independently of usage and occupancy. To minimize this wastage ILS Technology always provides “the right amount of light when and where needed” at any place.

ILS Technology continuously and autonomously enforces the site and time specific defined operational rules and logs usage data and consumption so managers can improve the working rules or establish true cost accounting. ILS Technology controls any kind of lamps found in offices either traditional or LED, is easily programmed and reprogramed by non-experts and logged data can be accessed with just a smart-phone.

CASE STUDY

ILS Technology was installed in a five floor office building in Lisbon downtown with an overall area of 1.250 sq. m. of open-space where more than 100 persons work. Schedules are flexible and the need to work overtime is frequent. Results showed 70% lighting savings in Spring, a 20% reduction on a monthly electricity bill of 1.250 Euros. The workers were pleased with more uniform lighting all over the day and the CFO was rewarded with a 14 month payback.

Challenge

- To reduce the lighting electricity bill.
- To manage equipment by turning them off when they are not needed.
- To guarantee workplace ergonomics and workers comfort.
- To do it in an unmanned and autonomous way so workers can concentrate in their jobs.



70%
SAVINGS

■ Savings

■ Usage



SAVINGS >50%

PAYBACK <12 months

CLOUD CONNECTED

AUTONOMOUS AND AUTOMATIC

WIRELESS

INTELLIGENT LIGHTING IN PARKINGS

Underground and covered parks must be lighted on a 24/7 basis to guarantee users and drivers safety. And face different lighting demands on circulation and parking areas.

Usage is very irregular with peaks during rush hours and almost quiet in the between. And when night falls although usage is very sporadic light must still be on so latecomers can still safely use the park. Usual solution is to keep lighting always on regardless of park vacancy and usage.

This simple fact is the cause for huge electricity bills and lighting total cost is still higher due to lamp and ballast replacement and repairs. Proper light management can reap large saving both in energy and maintenance costs.

CASE STUDY

A high school building faced high electricity cost in its 3 floor underground parking with a total area of 2.250 sq. m. Usage period is long but very uneven. The challenge was to save as much as possible in lighting while keeping the parking always lighted so users safety was maintained and the right lighting levels in the circulation zones were complied.

ILS Technology implementation allowed them to zone parking and circulation areas with different operational rules and a minimum lighting level was enforced during classes hours.

As a result users felt comfortable, drivers safe and 80% electricity lighting savings were obtained with a 11 month payback.

Challenge

- To reduce lighting costs, both energy and maintenance
- To provide differentiated light levels in circulation and parking areas
- To improve new level of security to users and assets.
- To implement comfort levels of light during a specific period of time



80%

SAVINGS

■ Savings

■ Usage



- SAVINGS >50%
- PAYBACK <18 months
- CLOUD CONNECTED
- AUTONOMOUS AND AUTOMATIC
- WIRELESS

INTELLIGENT LIGHTING IN INDUSTRY AND LOGISTICS

Industrial facilities and logistic warehouses have high lighting costs due both to electricity consumption and high maintenance costs. The causes are multiple mainly related to facilities dimensions and productive layout:

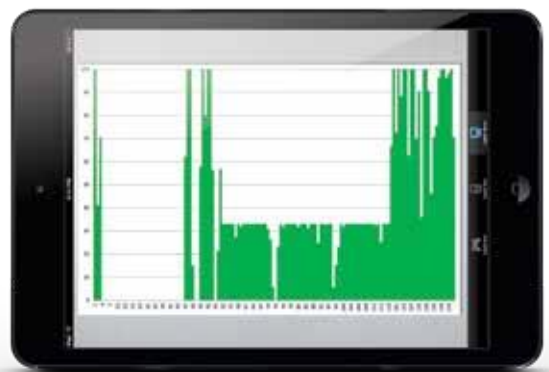
- High bay luminaires require high wattage;
- High wattage means consumption is also high;
- Large areas require a large number of luminaires;
- Lack of daylighting requires a long daily usage;
- Even when daylighting exists its distribution seldom fits the needs and as a result lights are on for a long period.

CASE STUDY

ILS Technology was deployed in an industrial facility nearby Lisbon, with 2.400 sq. m. of area and plenty of daylighting in the roof-top. The facility operates in a 2 shift basis six days per week. Taking advantage of the fact that all high bay luminaires have 3 T5 tubes IsGreen light controls each one so a 3 level dimming is available. Results shown in the adjoining graph were obtained in Spring in a lighted clouded day. Savings amount to 63% with a 14 month payback.

Challenge

- To reduce lighting costs, both operation and maintenance ones
- To provide differentiated light levels according to tasks performed
- To manage equipment by turning them off when they are not needed.
- To be easily adapted to evolving needs and changes in operations layout






63%
SAVINGS

Legend: Savings Usage



Public Library Network
of the Municipality of Palmela

- SAVINGS 72%
- PAYBACK 18 months
- CLOUD CONNECTED 
- AUTONOMOUS AND AUTOMATIC 
- WIRELESS 

INTELLIGENT LIGHTING IN LIBRARIES

Public libraries are complex spaces involving very different room typologies ranging from reading rooms to exhibition spaces and multimedia rooms. All with specific lighting requirements. To manage such a different spaces and keep them at top performance is a challenge to energy managers:

- Open high bay spaces with ample skylights requires hi-power lamps preferably with dimming capabilities;
- Diverse occupancy along the week and days means it is not easy to set a scheduling;
- Traditional solution is to provide excess light even when the space is unoccupied, a large lighting energy waste with corresponding high carbon footprint and bills.

Challenge

- To reduce lighting costs while improving the readers comfort.
- To provide different lighting strategies according to the room purposes, ranging from reading to media room and ancillary spaces.
- To harvest daylighting savings from large windows and skylights.
- To easily adapt to evolving needs and changes in the operations layout.

CASE STUDY

ILS Technology was deployed at Palmela Library within spaces with high variable purpose and usage: each room was a different challenge with specific operating rules and lighting requirements. Usage varies a lot as beside its normal usage the building is also used to host town meetings and exhibitions.

Different lighting strategies were deployed from simple on-off in the archives and depots, to light level controlled on-off and plain dimming. Results were beyond expectations and this lighting improvement was nationally recognized, receiving the 2016 Green Light Award in its category.



1th prize in 2017
Efficient Building Management



SST is a technological company dedicated to the development and commercialization of intelligent solutions to better manage the buildings.

ILS Technology it's a technology to manage equipments and lighting systems, with focus in offices buildings, residential offices, hotels, underground parks, industry sites, logistics facilities and others.

Our R&D department, SST Inovation, located at Funchal, Madeira, continuously improves and simplifies integrated systems of control, analysis and data-mining enabling smart technologies to fulfill client's real needs now and in the future.

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